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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,004	10/22/2003	Audrey D. Harman	2442	5680
28004	7590	06/05/2007		
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6391 SPRINT PARKWAY			FORD, GRANT M	
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OVERLAND PARK, KS 66251-2100			ART UNIT	PAPER NUMBER
			2141	
			MAIL DATE	DELIVERY MODE
			06/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/691,004	HARMAN, AUDREY D.	
	Examiner	Art Unit	
	Grant Ford	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Requirement for Information*

1. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The information is required to enter in the record the art suggested by the applicant as relevant to this examination. The Examiner requests any information regarding joint research between the Applicant/Assignee, Cisco Systems, and Hitachi Data Systems within the scope of the claims of the instant invention. The Examiner notes Cisco White Paper "*Cisco MDS 9000 Series Multilayer Switches*" dated October 2003 (copy included with action) and Hitachi Data Systems Press Release dated July 8, 2003 (copy included with action), which indicate joint research between the abovementioned entities in the field of the instant invention.

The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

***Claim Objections***

2. Claims 3-6 and 13-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims merely recite an intended use for the claimed invention and thus fail to further limit the claims from which they depend.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,3-6,9-11,13-16,and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US 2004/0233910) in view of Applicant Admitted Prior Art (AAPA).

a. As per claims 1 and 11, Chen discloses a data storage system comprising:

a first storage system at a customer premises that is configured to receive individual data files from a customer system, and on an individual file-by-file basis substantially in real time from receiving each of the individual data files, to determine

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individual file types for the individual data files and transfer the individual data files based on the individual file types determined for the individual data files (Abstract – see NAS client, Figure 2A element 215, Para. 0033-0034,0051); and

a second storage system configured to receive and store the individual data files on the individual file-by-file basis, and to subsequently form blocks of data including the individual data files, and transfer the blocks of data (Para. 0050-0051);

a third storage system configured to receive and store the blocks of data to store the individual data files (Para. 0051); and

an internet protocol connection configured to transfer the blocks of data from the second storage system to the third storage system (Para. 0035,0050-0051).

However, Chen fails to explicitly disclose a bonded time division multiplex connection which transfers individual data files between the first and second storage systems on an individual file-by-file basis.

AAPA teaches a bonded time division multiplex connection configured to transfer the individual data files from the first storage system to the second storage system on the individual file-by-file basis (Specification Page 4 lines 7-12, Figure 2). It would have been obvious to one having ordinary skill in the art to incorporate the use of a bonded time division multiplex connection to transfer individual data files on an individual file-by-file basis with the storage network of Chen. One of ordinary skill in the art would have been motivated to do so for the purpose of providing special framing interfaces that provide popular interfaces on the customer side and high-bandwidth

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communications on the network side over unbundled network elements (Specification Page 4 lines 7-12).

b. As per claims 3 and 13, Chen discloses wherein the second storage system is less than 20 miles from the customer premises (Para. 0002,0006,0015).

c. As per claims 4 and 14, Chen discloses wherein the second storage system is less than 50 miles from the customer premises (Para. 0002,0006,0015).

d. As per claims 5 and 15, Chen discloses wherein the second storage system is greater than 50 miles from the customer premises (Para. 0002,0006,0015).

e. As per claims 6 and 16, Chen discloses wherein the second storage system is greater than 200 miles from the customer premises (Para. 0002,0006,0015).

f. As per claims 9 and 19, AAPA discloses wherein the first storage system is a NAS system and not a SAN switch (Specification Page 3 lines 6-11 – see NAS system 102, Figure 1).

g. As per claims 10 and 20, AAPA discloses wherein the first storage system transfers the individual data files to the second storage system on the individual file-by-file basis and not on a block-by-block basis (Specification Page 3 lines 6-11 – see NAS system 102)

5. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and AAPA in view of Padovano (US 2002/0156984).

a. As per claims 2 and 12, Chen discloses storing versions of data files at a customer system, second storage system, and third storage system (Para. 0050-0051). However, Chen does not explicitly disclose that the three systems are geographically diverse.

Padovano teaches wherein versions of the individual data files are simultaneously maintained at three geographically diverse locations (Para. 0077). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of geographically diverse locations with the storage system of Chen. One of ordinary skill in the art would have been motivated to do so for the purpose of incorporating wide area networks into a storage network configuration (Para. 0050) as well as allowing for remote backup, mirroring, and replication configurations of the storage network.

6. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and AAPA in view of Greenblatt et al. (US 2003/0115204) hereinafter referred to as Greenblatt.

a. As per claims 7 and 17, Chen and AAPA teach the invention substantially as claimed above. However, Chen fails to explicitly disclose a customer management system at the customer premises. Greenblatt teaches a customer management system at the customer premises which received customer instructions and in response modifies storage capacity at a second and third storage system and modify

communications capacity on network links (Figure 1, Para. 0010,0012,0015,0022, 0044-0060). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a management console for storage and bandwidth management with the storage network of Chen. One of ordinary skill in the art would have been motivated to do so for the purpose of defining and evaluating policies to perform actions in a more efficient and cost-effective manner (Para. 0010).

b. As per claims 8 and 18, Chen and AAPA teach the invention substantially as claimed above. However, Chen fails to explicitly disclose a customer management system at the customer premises. Greenblatt teaches a customer management system at the customer premises linked to a second and third storage system which receives customer instructions and assigns priorities that the individual data files have to block transfer between the second and third storage systems (Figure 1, Para. 0010,0012,0015,0022, 0044-0060). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the use of a management console for storage management with storage networks. One of ordinary skill in the art would have been motivated to do so for the purpose of defining and evaluating policies to perform actions in a more efficient and cost-effective manner (Para. 0010).

### ***Conclusion***




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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant Ford whose telephone number is (571)272-8630. The examiner can normally be reached on 8-5:30 Mon-Thurs alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gmf

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER